Transduced Objects and Spiritual Automata:
Dimensions of Experience in David Tudor's Live Electronics
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ABSTRACT

David Tudor rarely theorized about his work in live electronics, preferring instead to focus on the invention and performance processes themselves as the media of his artistic ideas. Similarly, although he is regularly mentioned in histories of experimental music as a major interpreter of the work of Cage and others, his own compositions rarely receive attention outside of specialist discussions of electronic music. This paper will seek to redress this critical deficit, proposing a framework of theoretical concepts for reflecting about the nature of Tudor's live electronic work, concepts which will at once make his work more "available" for critical discussion and indicate its distinctiveness.

I will be drawing from a body of theoretical work outside the domain of music, from the two-volume theory of cinema developed in the 1980s by the philosopher Gilles Deleuze (*Cinema I: The Movement-Image ; Cinema II: The Time-Image*) and, to a more limited extent, the theory of distributed objects and agents articulated by the anthropologist Alfred Gell in his posthumous book *Art and Agency*. Deleuze's cinema work, I will suggest, is particularly appropriate for reflecting on Tudor's work, because of Deleuze's rich sense of the ways technological and technical constellations in the cinema shape the phenomenological dimensions of embodied experience. Deleuze, like Tudor, does not separate the technological and human components of a given constellation, but understands them to be "composed" into materially immanent assemblages or complexes of "images" (understood not just visually, but multi-sensorially). Gell, in turn, offers a vocabulary of "distributedness" of both art object and artistic agency that helps account for the shifting dynamics of complex, immanent performance situations.

Deleuze's interest in the cinema lies with that medium's ability to mobilize technological means to relate space and time in novel ways that do not simply reflect human perceptual experience or even just actively manipulate it, but that also project radically new, extra human forms of experience. Deleuze has especially in mind the ability of the post-war cinema to offer viewers intense, often perplexing experiences of time that are drastically different from the chronological and existential time within which humans ordinarily intuit temporal modes of experience such as memory, presence, repetition, continuity, anticipation, and desire. I will suggest that Deleuze's focus on temporality with respect to the technological shaping of experience lends his cinema theory a particular applicability to live electronic music as well. The much-noted emphasis of this music on process over product and the sound-ecology models that often underlie the artists' conception of these works (from Tudor's *Rainforest* to David Dunn's environmental music projects and speculations on music as interspecies communication) resonate closely with Deleuze's idea of the cinema image as a dynamic manifold of technical, material, and vital components.

In particular, I will concentrate on the major distinction Deleuze introduces between the "movement-image" and the "time-image." In the movement-image, according to Deleuze, time is imaged as a function of movement in space; although clock-time would be one example, he offers a wide range of other forms of spacialized, kinematic time as well. The time-image, in contrast, does not represent time as relative to movement (spatial displacement, narrative succession, etc.). Rather, it renders a "direct" image of time, bending spatial movement, narrative succession, chronology, and even bodily movement in ways that defy intuitive experience. Deleuze has in mind the range of cinematic narratives that involve irrational narrative connections, undecidable multiplications of narrative versions, magical causations, time-loops and mental travel, and so on. I relate these two modes of temporal representation to the two basic technical modes that Tudor employed in his live electronic works:

1. those works that treat the electronic environment as a space of "traduced objects" in which oscillation, echoing, and spatial focalizing and displacement are key processes (from *Fluorescent Sound* to *Rainforest*, originally a dance piece for Merce Cunningham and later a sculptural sound environment);

2. and late works such as the *Neural Syntheses* that enfold the specialized relations of the earlier works back into the structure of the electronic components for generating the sound environment, constituting a kind of technosonic brain or "neural network." In these works, performance activates and expresses as sound-events some contingent sample of the network's virtual connections, proximities, and distances.

Instead of the restricted term "neural network," however, I use Deleuze's more general term "spiritual automata" to indicate this latter mode of brain-technology composition for which the "thoughts" are the technological artistic images produced and projected at the interface of the human and the non-human (rather than being "in the head" of either the composer or his listener). With respect to live electronics, any given structure of electronic components can, in performance, generate new and shifting "distributions" (in Gell's sense) between objects and agents, allowing an open-ended exploration of experiences that lie beyond immediate human intuitability (without being, ultimately, inaccessible to various sorts of apprehension and analysis). I believe that this framework can help make sense of Tudor's enigmatic reference to trying to "turn one's thoughts inside-out" and his description of the significant turn from his earlier works to the direction of his final projects: "I started with the idea that... sound could be obtained from sculptural material or actually from anything through reflections. But the thing that is turning my idea about how to form the piece 'inside-out', because, you see, I was starting from materials, and now I'm already working with waves which don't exist" (Interview with Larry Austin, 3 April 1989).

[FULL PAPER NOT AVAILABLE]